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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/819,188	03/28/2001	Thomas Michael Gooding	ROC920010087US1	2894

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EXAMINER

NGUYEN, VAN H

ART UNIT	PAPER NUMBER
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2126

DATE MAILED: 10/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/819,188

Applicant(s)

GOODING, THOMAS MICHAEL

Examiner

VAN H NGUYEN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 June 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6-15, 17-21, 23-31, 33 and 34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-15, 17-21, 23-31, 33 and 34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-4, 6-15, 17-21, 23-31, and 33-34 are presented for examination.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 6, 7, 11-14, 15, 17, 23, 24, 28-31, and 33-34 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

4. Specification does not explicitly describe nor is sufficiently clear for one of ordinary skill in art to recognize the following steps as recited in claims 6, 7, 11-14, 15, 17, 23, 24, 28-31, and 33-34:

- **eliminating remote node write only-type data** from the pure value buffer
- **eliminating local node read only-type data** from the pure value buffer
- **eliminating second node write only-type data** from the pure value buffer
- **removing local node read only-type data** from the pure value buffer

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5. In the response filed June 25, 2004, Applicant stated "Applicant submits that these steps are defined in the specification at paragraphs 23, 27, 28, 31, 32, 37, 72, and 73." However, the Examiner could not locate the details of these steps within the paragraphs indicated by Applicant.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-4, 6-15, 17-21, 23-31, and 33-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Wang et al.** (U.S. 6, 708, 223).

8. **As to claim 1**, Wang teaches the invention substantially as claimed including a method for transmitting local node function parameters to a remote node for execution of the function on the remote node (*col.2, lines 36-51*), comprising:

associating a representation string with function parameters on a first stack, wherein each character in the representation string corresponds to a data type of an individual function parameter on the first stack (*fig. 3A and associated text*); and

dereferencing pointer parameters on the first stack (*col.8, lines 43-57*);

generating a pure value buffer with the function parameters and the dereferenced pointer parameters (*col.8, lines 58-65*); and

transmitting the pure value buffer to the remote node (*col.8, line 65-col.9, line 13*).

While Wang teaches that the marshalling layer copies any immediate data in the parameter set into the buffer (*col.8, lines 58-62*), Wang does not specifically use the term *flattening* and *flattened*.

It would have been obvious to one of ordinary skill in the art to have applied the teachings of Wang to include the features as claimed because Wang's teachings would have provided the capability for facilitating the remote execution of the function on the server, and maximizing the efficiency of RPC flow control.

The fact that Wang's teachings "the proxy marshals the call parameters into an RPC buffer" (*col.2, lines 44-45*) and "to perform marshalling, the proxy copies immediate data from the parameter set 125 and additional data 144 to an RPC buffer 123 for transmission" (*col.9, lines 14-16*) and the purpose of *marshalling* (the call parameters) and *copying* (immediate data from the parameter set 125 and additional data 144 to an RPC buffer 123 for transmission) in Wang suggests *flattening* (the pure value buffer).

9. **As to claim 2**, Wang teaches associating the representation string further comprises generating a DTSTRUCT string (*col.8, lines 44-55*).

10. **As to claim 3**, Wang teaches assigning a specific text string character to each function parameter data type on the first stack, wherein the assigning is conducted by at least one of a user input and a compiler generation operation (*col.8, lines 47-57*).

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11. **As to claim 4**, Wang teaches retrieving data represented by the pointer parameters and placing the data represented by the pointer parameters on the pure value buffer (*col.8, lines 52-62*).
12. **As to claim 6**, Wang teaches eliminating remote node write only-type data from the pure value buffer prior to transmitting the pure value buffer to the remote node (*col.11, lines 31-42*).
13. **As to claim 7**, Wang teaches eliminating local node read only-type data from the pure value buffer node (*col.11, lines 31-42*).
14. **As to claim 8**, Wang teaches receiving the pure value buffer at the remote node (*col.8, line 60-col.9, line 12*); generating a second stack on the second node mirroring the first stack on the first node (*see fig.3B and associated text*); executing a function using the second stack; creating a return pure value buffer; and transmitting the return pure value buffer to the first node (*col.2, lines 44-51 and figs.7-8*).
15. **As to claim 9**, Wang teaches using the representation string to recreate the second stack (*col.8, lines 45-57 and col.9, lines 10-13*).
16. **As to claim 10**, Wang teaches receiving the return pure value buffer on the first node; regenerating the first stack on the first node; and replacing each pointer that was written back in an original memory location pointed to by the first stack (*see fig.7*).
17. **As to claims 18-21 and 23-27**, note the rejection of claims 1-4 and 6-10 above. Claims 18-21 and 23-27 are the same as claims 1-4 and 6-10, except claims 18-21 and 23-27 are computer readable medium claims and claims 1-4 and 6-10 are method claims.

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18. **As to claim 11**, the rejection of claim 1 above is incorporated herein in full. However, claim 11 further recites “eliminating second node write only-type data from the pure value buffer.”

Wang teaches eliminating second node write only-type data from the pure value buffer node (*col.11, lines 31-42*).

19. **As to claim 12**, Wang teaches generating a stack having the function related data further comprises retrieving the function related data from various memory locations and storing the function related data in a contiguous stack location (*col.3, lines 14-51*).

20. **As to claim 13**, Wang teaches retrieving pure value data represented by the pointer parameters and storing the pure value data on the stack (*see figs. 3A and 3B*).

21. **As to claim 14**, Wang teaches inserting pure value data into the stack in place of the pointer parameters and copying the stack contents to the pure value buffer (*see fig.3A and associated text on col.8, lines 43-62*).

22. **As to claim 15**, refer to the discussion of claim 1 above for rejection of “flattening the pure value buffer.”

23. **As to claim 17**, refer to the discussion of claim 7 above for rejection of “eliminating first node read only-type data from the pure value buffer prior to transmitting the pure value buffer to the second node.”

24. **As to claim 28**, the rejection of claim 11 above is incorporated herein in full. However, claim 28 further recites “removing local node read only-type data from the pure value buffer.”

Wang teaches removing local node read only-type data from the pure value buffer (*col.11, lines 31-42*).

25. As to claims 29-31 and 33-34, note the rejection of claims 12-15 and 17 above. Claims 29-31 and 33-34 are the same as claims 12-15 and 17, except claims 29-31 and 33-34 are computer readable medium claims and claims 12-15 and 17 are method claims.

Response to Arguments

26. Applicants' arguments filed June 25, 2004 have been considered but are moot in view of the new ground(s) rejection.

Conclusion

27. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Ludwig et al. (U.S. 6006230) teaches "Marshalling is the process whereby the parameters are flattened into a data buffer"

- Kays et al. (U.S. 6249822) teaches "Whenever an application program makes a remote procedure call, the application accesses a client stub procedure that formats or marshals the remote procedure call parameters within a buffer for transmission over the network to the server"

28. Any inquiry concerning this communication or earlier communications from the examiner should be directed to VAN H. NGUYEN whose telephone number is (703) 306-5971. After mid-October, 2004, the examiner can be reached at (571) 272-3765. The

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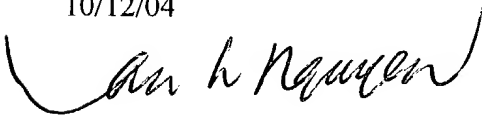
examiner can normally be reached on Monday-Thursday from 8:30AM - 6:00PM. The examiner can also be reached on alternative Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (703) 305-9678.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

10/12/04

A handwritten signature in black ink, appearing to read "Van H. Nguyen", written in a cursive style.

Van H. Nguyen